

POLAND / Chemical Technology, Chemical Products and
Their Application, Part 3. - Fermentation
Industry.

H

Abs Jour: Ref Zhurnal Khimiya, No 18, 1958, 62539.

Author : Feliks Polak.

Inst : ~~Not given.~~

Title : By-Products of Glycerin Fermentation.

Orig Pub: Przem. spozywczy, 1957, 11, No 8, 330 - 333.

Abstract: The chemism of the glycerin fermentation and the methods of utilization of its by-products (acetaldehyde, ethanol, CO₂ and residual glycerin liquid) are discussed. Experimental data of vinegar production from ethanol distilled from glycerin must are presented. The number of times, which yeast can be used, may be rised from 4 to 9 by adding CaCO₃ together with Na₂SO₃ to the must.

Card 1/1

13

POLAK, F.

PRZEMYSŁ CHEMICZNY
Vol XIII, Nr 11, 1957

3

phenol-Formaldehyde Ion Exchangers - by F. Polak
and L. Szwarc

Summary

A method is described of preparing cation exchanger of phenol sulphone type by the reaction of phenolsulphonic acid with formalin in acid medium at ambient temperature. The influence of some parameters on the trend of reaction has been investigated, including: (1) the concentration of phenolsulphonic acid, (2) the phenol-formaldehyde ratio, (3) the duration of heating at higher temperature the product obtained at ambient temperature (the gel), (4) the phenol sulphuric acid ratio, and (5) additional sulphonation. The exchange value for the acclimatized substance ranged from 0.8 to 2.7 mval depending on the conditions of reaction.

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Polak F. Silica-Gel and Some of its Properties.

"Zel krzemionkowy i pewne jego właściwości". Przemysł Chemiczny.
No. 2, 1958, pp. 83—91, 5 figs., 9 tabs.

The conditions of preparing silica-gel were examined and it was found that, on a large laboratory scale, maintaining the same conditions, the gel prepared always has practically the same properties. An apparatus is described for examining by dynamic method the adsorption of water vapour by silica-gel. The breaking-through and saturation adsorptivity for water vapour was determined at various degrees of relative humidity, and an examination made of the influence of temperature and grain size on the gel prepared. The adsorptivity of the gel described was found to be equal to that of a gel of American origin, and the selective adsorptivity in relation to petroleum products — the same as that of the best imported gels. Good selective adsorptivity of this gel towards glycerine in solution of aniline and of isobutyl alcohol is taken into account as a new way of isolating glycerine from fermentation waste liquors. When comparing the breaking-through adsorptivity of water vapour in applying silica-gel or aluminium oxide,

EW
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[the highest degree of adsorptivity was shown by silica-gel, a lower degree by nitrate aluminium oxide, and the lowest by aluminate aluminium oxide particularly at small relative atmospheric humidity.]



POLAK, F.

Phenol-formaldehyde ion exchangers. II. Influence of the ratio of phenol to formaldehyde on the properties of cation of the phenolsulfonic acid condensed in an acid medium. Feliks Polak and Edgar Bartel (Univ. Jagielloński, Poland). *J. Polym. Sci.*, **37**, 651-7 (1958) (English summary); cf. *C.A.*, **52**, 8417d.—The condensation reaction of *p*-phenolsulfonic acid with HCHO in an acid medium can be controlled when the process is carried out to the gelling point at ambient temp. Thus, the exchange capacity and the swelling coeff. of the cationite is controlled. The S content and the no. of sulfonic groups in the ion exchanger decreases with decreasing ratio of phenol to HCHO. The swelling coeff. depends largely on the content of the sulfonic groups. The main factor responsible for splitting sulfonic groups during condensation is HCHO. The ratio of phenol to HCHO influences the yield of the resin. 20 references.

F. J. Hendel

6
Zmazy
4E2c (ij)
2-4E3C
4E3d

K JG

EXCERPTA MEDICA Sec 18 Vol 4/1 Cardiovas. Dis. Jan 60

218. Experience in the treatment of organic arterial diseases of the lower extremities with tolazoline, phentolamine, dibenzylamine, nicotinic acid, tetraethylammonium bromide, dihydralazine and baths Therapeutische Erfahrungen an organischen Arterienkrankungen der unteren Extremitäten mit Priscol, Reginin, Dibenamin, Peviton, TEAB, Nepresol und Bäderbehandlung. SNABL P., POLAK E. and FILA ZD. Poliklin. für Kreislauferkrankh., Liberec (CSR); Abt. für Inn. Med., Tanvald (CSR) Z. ges. inn. Med. 1958, 13/16 (622-626) Tables 4

In 116 patients (94 atherosclerotics and 22 with Bürger-Winiwarter's endoarteritis), the effect of various drugs was evaluated by means of the walking test, measurement of the skin temperature, the time of reactive hyperaemia after application of the tourniquet and the recirculation time in a limb after its elevation. Only with intra-arterial injection and in non-ambulatory patients were the following results obtained: dibenzylamine, *N,N*-dibenzyl- β -chlorethylenediamine and tetraethylammonium bromide improved the deep as well as the superficial circulation; tolazoline improved the deep and dihydralazine the superficial circulation.

Ferrari - Venice (XVIII, 6, 9, 19)

POLAND / Chemical Technology. Chemical Products and H-13
Their Application. Ceramics. Glass. Bind-
ing Materials. Concrete.

Abs Jour: Ref Zhur-Khimija, No 1, 1959, 2083.

Author : Polak, F.

Inst : Not given.

Title : Silica Gel and Certain of Its Properties.

Orig Pub: Przem. chem., 1958, 37, No 2, 83-91.

Abstract: An experimental method was developed for preparing silica gel suitable for absorbing water vapors from gases, and possessing good adsorption properties under dynamic conditions. A soluble glass and hydrochloric acid are used as the starting raw material. An example: 2650 milliliters of a soluble glass consisting of 26.3% SiO₂ and 7.3% Na₂O is diluted with water to 5300

Card 1/3

POLAND / Chemical Technology. Chemical Products and H-13
Their Application. Ceramics. Glass. Binding Materials. Concrete.

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 2083.

Abstract: milliliters. The solution obtained is slowly and with constant agitation, poured into 6000 milliliters of hydrochloric acid. Thus prepared hydrogel is partially dried at 45°C. to 30% moisture content, then sodium chloride is leached out and the gel is dried at 50-200°C. A device is designed and constructed for measuring the adsorption capacity of the gel at various relative air humidity. The adsorption capacity of the described product is the same as that of a gel made in America; selective adsorption capacity in regard to naphtha products is not inferior to best imported materials. The silica gel can be successfully applied to separation of glycerine from solutions

Card 2/3

43

POLAND / Chemical Technology. Chemical Products and Their Application. Ceramics. Glass. Binding Materials. Concrete. H-13

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 2083.

Abstract: in aniline or isobutyl alcohol. The silica gel adsorbs water vapors considerably better than does alumina.

Seventy-three references. -- L. Sedov.

Card 3/3

POLAK, F.

1
Phenol-formaldehyde ion exchangers. III. Influence of C₆H₅OH:H₂SO₄ ratio on properties of phenol-sulfonic cation exchanger condensed in acid medium. Feliks Polak and Edgar Bartel. *Przemysl Chem.* 38, 427-430 (1959); cf. *C.A.* 53, 17307h.—In the investigation the ratio PhOH:

H₂SO₄ was varied from 1:1 to 1:2 keeping PhOH:HCHO const. at 1:1.25. Gelation time decreases with excess of acid. Exchange capacity increases slightly for higher ratios. The yield of resin increases for up to 1:1.25 ratio and then decreases, the decreases being higher for unheated resins. Swelling degree is higher for unheated resins than heated, but is not greatly affected by PhOH:H₂SO₄ ratio. Titration graphs show absence of carboxylic groups. In general, PhOH:HCHO ratio and heating of the gel have more pronounced effect on exchanger properties than excess of H₂SO₄. Deficiency of the acid is harmful, but excess is justified only when resin of specially high exchange capacity is required.

W. Paduch

3
1988 (NB)

POLAK, Feliks; WILKOSZ, Lechoslawa

Simultaneous determination of glycerol and aniline. Chem anal 4
no.5/6:947-957 '59. (EEAI 9:9)

1. Katedra Technologii Chemicznej Uniwersytetu Jagielonskiego,
Krakow.

(Aniline) (Glycerol)

POLAK, F.; HAASE, J.; PRANEK, M.

Economic considerations concerning the construction of a new brewery in
Topolcany. p. 86

KVASNY PRUMSYL. (Ministerstvo potravinarskeho prumyslu) Praha, Czechoslovakia
Vol. 5, no. 4, Apr. 1959

Monthly List of East European Accessions (EEAI), LV, Vol. 8, No. 7, July 1959
Uncl.

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341710017-6

POLAK, Feliks

Molecular screens. Przem chem 39 no.5:265-268 My '60.

1. Katedra Technologii Chemicznej, Uniwersytet Jagiellonski, Krakow

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341710017-6"

POLAK, Feliks; BORTEL, Edgar

Phenol-formaldehyde ion exchangers. IV. Synthesis of esters in
higher temperatures with the deficiency of formaldehyde. Przem
chem 39 no. 7-446-448 Jl '60.

1. Katedra Technologii Chemicznej, Uniwersytet Jagiellonski,
Krakow.

POLAK, Feliks; BORTEL, Edgar

The ion exchanger in the column. The exchange zones. Przem chem 40
no.10:591-595 O '61.

1. Katedra Technologii Chemicznej, Uniwersytet Jagiellonski, Krakow.

POLAK, Felika; PARASIEWICZ-KACZMarska, Jadwiga

Obtaining of silica gels with the use of ion exchangers. II
Dependance of gelatine structure from pH hydrozol. Przem chem
41 no.2:87-90 F '62.

1. Katedra Technologii Chemicznej, Uniwersytet Jagiellonski, Krakow

ENGELBERTH, O.; KUCHEL, O.; POLAK, G.

Effect of innervation on permeability of hyaluronidase into the connective tissue and on its obstruction by sodium salicylate in vivo. Physiol. bohem. 5 no.1:70-77 1956.

1. III-ya klinika vnutrennikh bolezney Karlova Universiteta v Prague.

(HYALURONIDASE, physiology,
connective tissue penetration after & before denervation,
obstruct. by sodium salicylate (Rus))
(CONNECTIVE TISSUE, physiology,
hyaluronidase penetration after & before denervation,
obstruct. by sodium salicylate (Rus))
(SALICYLATES, effects,
sodium salicylate on hyaluronidase permeability in
connective tissue before & after denervation (Rus))

COUNTRY : CZECHOSLOVAKIA
CATEGORY : General Problems of Pathology. Immunity U
ABSTRACT NO.: RZBiol., No. 12 1958, No. 56284
AUTHOR : Polak, G., Polakova, R., Shkvarzhil, F.
TYPE :
TITLE : The Role of Leukocytes in the Processes of Immunity
of the Organism
CITE. PUB. : Czechosl. Med. Obozreniye, 1957, Vol.3, No.1, 37-45
ABSTRACT : The migration of leukocytes (ML) was studied in healthy children aged less than 2 years, in adults, and in umbilical blood. The ML was studied in glass chambers (Martin, S.P., J.Exptl. Med., 1950, Vol.91, 381). During the first 14 days of life, the ML is intensified, then it decreases, becoming a minimum by the 3rd month. Later the ML again increases, but by the 2nd year it has not yet reached the average value for adults. In the plasma of adults there is a specific factor - leukonine(L), which increases the mobility of the leukocytes. Report is given of several properties of L and the prospects for its use in the clinic. --N.I.Braude
CARD: 1/1

HAHN, P.; POLAK, H.

~~Effect of histamine on the resistance to high altitude anoxia [with summary in German]~~ Chekh. fiziol. 1 no.1:66-74. (MLRA 6:12)

1. Tsentral'nyy institut biologii, Fiziologicheskoye otdeleniye, Praha.
* (Anoxemia) (Histamine)

HAHN, P.;POLAK, H.

Effect of histamine on resistance to high altitude anoxia. Cesk. fysiol.
1 no.1:43-50 1952. (CML 23:4)

1. Of the Physiological Department of the Central Institute of Biology.

Potáček, H.

~~G E N E R A L~~ . *azech*

✓ 1296. A new modification of a method for determination of antidiuretic activity. V. Hoříček, H. Polák, J. Bláha and M. Jirásek (*Endokrinologie*, 1955, **38** (1-2), 38-45).—A modification of the method of Jeffers *et al.* (*Brit. Abstr., A III*, 1942, 810) for the determination of antidiuretic activity is described. The test solution is administered intravenously, by means of a cannula, into rats rendered diuretic by administration by stomach tube of alcohol and water. The new method is very sensitive and 100 per cent. response is obtained with doses as small as 16 *in vitro* units of aduretin. A single rat can be used for 10 to 14 titrations compared with 4, at the most, using Jeffers' method.

J. N. ASHLEY

POLÁK, H.

The relation of histamine to the secretion of the adrenal cortex. H. Polák (Charles Univ., Prague, Czech.). *Sbor. Lékařských Akad. ČSR* 10(1934).—About 45 min. after subcutaneous application of 20 mg./kg. histamine (I) to male Wistar rats, there occurred a more pronounced depletion of L-ascorbic acid in the adrenals than after exposure to anoxia equiv. to an altitude of 9500 m. It is concluded from the results that I has a special affinity for the secretion of cortical steroids. It is suggested that exhaustion of the adrenal cortex in cases of chronic allergic diseases is caused by repeated stimulation of the adrenal cortex by I which is liberated during allergic attacks. L. J. Urbánek

POLAK, H.

The effect of histamina on metabolism. H. Polák, P. Hahn, M. Mazanec, and V. Teply (Charles Univ., Prague, Czechoslovakia). *Sborník Lékařský* 56, 105-110 (1974). Subcutaneous applications (100 mg./kg.) of histamine (I) cause metabolic changes manifested by hyperglycemia (max. after 2 hrs.) and considerable depression of liver and muscle glycogen in normal and bilaterally adrenalectomized rats. The same effects were observed in rats after administration of Dibenamine (20 mg./kg. intravenously) prior to the injection of I. There was no change in the blood level of pyruvic acid 2 hrs. after the application of I (100 mg./kg.). These effects were not due to the action of secondarily liberated adrenaline. L. J. Urbánek

POLAK, H.; TEPILY, V.; MAZANEC, M.

Effect of the central nervous system on glycolytic action of histamine. Sbor. lek. 56 no.5-6:117-125 June 54.

1. Z klinicko-fysiologicke laboratoře III. interní kliniky KU v Praze, prednosta prof. MUDr J. Charvat.

(HISTAMINE, effects,
on glycogen metab. in denervated organs)

(GLYCOGEN, metabolism,
eff. of histamine in denervated organs)

(CENTRAL NERVOUS SYSTEM, physiology,
regulation of glycogen metab. after admin. of histamine)

Polák A.

✓ Neural effects on hormone action. I. Introductory studies on hormones and neural action. O. Küchel and H. Polák (III. Intern. Klin., Prague). *Casopis Lékařů Českých* 94, 1145-9(1955).—The discussion is illustrated by a case history of hormonal imbalance with unilateral gynecomastia on the side of an innervation disturbance due to spinal changes. II. Dependence of the role of thyroxine on nerve action. H. Polák, O. Küchel, and O. Engelberth. *Ibid.* 1150-3.—Muscle glycogen (I) estns. were carried out in normal rats and in rats after bilateral abdominal sympathectomy combined with myelotomy both with and without intraperitoneal administration of thyroxine (II) in doses of 0.5 mg./rat for 2 days. No detectable change in muscle I level occurred after II administration in muscles with no innervation. After sympathectomy and myelotomy alone a significant fall in muscle I occurred in hind legs; administration of II in the same dosage as in normal rats caused a further decrease in muscle I in the hind legs. The difference of the effect of II in muscles with intact and impaired nerve supply is taken as evidence for the dependence of II effect on action of nerves. Vasodilation cannot be responsible for this effect.
I. M. Huis

Z III. interni kniniky Ku v Praze. Prednosta adademik
J. Charvat.

(Nerves, physiology - trophic funct., eff. of hormone metab.)

CHARVAT, J.; HOLECEK, V.; POLAK, H.

Conditioned reflex in secretion of antidiuretic hormone.
Cesk. fysiol. 4 no.1:14-18 28 Feb 55.

1. III. interni klinika lekarske fakulty Karlovy university,
Praha.

(VASOPRESSIN, physiology,
secretion, conditioned reflex)
(REFLEX, CONDITIONED,
conditioned vasopressin secretion)

CHARVAT, J.; HOLECK, V.; POLAK, H.

Conditioned reflex following administration of antidiuretin. Chekh.
fiziol. 4 no.1:42-47 1955.

1. III-ia terapeuticheskaja klinika meditsinskogo fakul'teta uni-
versiteta imeni Karla IV, Praga.

(REFLEX, CONDITIONED,

to vasopressin)

(VASOPRESSIN, effects,
conditioned reflex)

POLAK, H.

Participation of histamins in adaptation processes of the organism. Sborn. lek. 57 no.8:191-202 Oct 55.

1. Z III. interni kliniky KU v Praze, prednosta akademik
J. Charvat.

(ADAPTATION

of organism, in exper. anoxia, role of histamine in mice & rats.)

(HISTAMINE, effects

on adaptation process of organism in anoxia in mice & rats)

(ANOXIA, experimental

adaptation of organism, eff. of histamine in mice & rats)

POLAK, H.; KUCHEL, O.; ENGELBERTH, O.

Influence of trophic nerves on hormonal function. 2. Cas. lek.
cesk. 94 no.43:1150-1153 21 Oct 55.

1. Z III. interni kliniky KU v Praze, Prednosta akademik J. Charvat.
(NERVES, physiology
trophic funct., eff. of hormone metab.)
(HORMONES, metabolism
eff of trophic nerv funct.)

POLAK, HUGO

Leukokinin; plasmaticky faktor zvysujici amoeboidni aktivitu leukocytu.
(Napsali) H. Polak, K. Polakova (a) F. Skvaril. (1 vyd.)

Praha, Czechoslovakia, Statni zdravotnické nakl., 1956. 82 p.

Monthly List of East European Acquisitions (EEAI), LC, Vol. 8, no. 11, Nov. 1959
Uncl.

POLAK, H.

6302. Influence of innervation on penetration of hyaluronidase into connective tissue and its suppression by sodium salicylate *in vivo*.
O. Engelbert, O. Kuchel, and H. Polák *Physiol. Bohem.*, 1956, 5, 70-77 (Karls Univ., Prague, Czechoslovakia). Hyaluronidase did not penetrate into denervated connective tissue as easily as into innervated connective tissue, whilst Na salicylate checked its penetration into both denervated and innervated tissue. (Russian English summary) A. ACKROYD

POLAK, n.

CZECHOSLOVAKIA / Human and Animal Physiology. Blood. T

Abs Jour::Ref Zhur-Biol., No 5, 1958, 22081.

Author : Polak, Hogo, Polakova, Kveta, Skvaril Frantisek.

Inst : Not given.

Title : Leucokinin, Plasma Factor Stimulating Amoboid Activity of Leucocytes.

Orig Pub: Praha, Szdn. 1956, 84s, ill., (90s)

Abstract: No abstract.

Card 1/1

CZECHOSLOVAKIA/Human and Animal Physiology - Internal Secretion. T-7
Hypophysis.

Abs Jour : Ref Zhur - Biol., № 18, 1958, 84316

Author : Charvat, J., Holecek, V., ~~Iolak, H.~~

Inst : Carolinum University of Prague.

Title : The Role of Nerve Vagus in the Mobilization of Antidiuretic Hormones.

Orig Pub : Univ. carolina, Med., 1956, 2, No 3, 259-265.

Abstract : Five men received intravenous injections of a 15 percent NaCl solution in doses of 20 ml, given 2-3 hours after meals for the duration of 2 minutes. After 20 minutes, the blood's antidiuretic hormone (AH) content rose to 11-28 microunits per each ml of the serum (before NaCl was introduced, AH was not found in blood). On the next day the tests were repeated with the only variation that now a 0.5 mg

Card 1/2

ENGELBERTH, O.; KUCHEL, O.; POLAK, H.

Effect of innervation on penetration of hyaluronidase through
the connective tissue and its depression by sodium salicylate
in vivo. Cesk. fysiol. 5 no.1:56-63 26 Mar 56.

1. III. interni klinika lekarske fakulty Karlovy university,
Praha.

(HYALURONIDASE, metabolism,
connective tissue, eff. of myelotomy and sympathectomy
in rats (Cz))

(CONNECTIVE TISSUE, metabolism,
hyaluronidase, eff. of myelotomy & sympathectomy in
rats (Cz))

(SYMPATHETIC NERVOUS SYSTEM, physiology,
eff. of section on connective tissue penetration by
hyaluronidase (Cz))

(SPINAL CORD, physiology.
same)

POLAK, H.; POLAKOVA, K.; MALY, V.

Indirect demonstration of a factor in the blood in adults responsible for increased motility of infant leukocytes. Cesk. pediat. 11 no.5:321-332 May 56.

1. Z III. interni kliniky KU, prednosta akad. J. Charvat, z kojeneckeho oddeleni, prednosta doc. MUDr. K. Kubat, Ustavu pro peci o matku a dite, reditel prof. MUDr. J. Trapl. Statisticke hodnoceni: MGMat. V. Maly. Z Ustavu pro organizaci zdravotnictvi lekarske fakulty KU, prednosta prof. MUDr. V. Prosek.

(LEUKOCYTES,

eff. of transfusion of adult blood on leukocyte motility in inf. (Cz))

(BLOOD TRANSFUSION,

eff. of transfusion of adult blood on leukocyte motility in inf. (Cz))

POLAK, H.; POLAKOVA, K.; SKVARIL, Fr.

Identification of certain properties of plasma factor increasing amoebic activity of leukocytes. Cesk. pediat. 11 no.6:411-415
June 56.

1. Ze III. int. kliniky SFN v Praze 2 (predn. akad. J. Charvat)
z Ustavu pro peci o matku a dite, koj. odd. (prednosta doc.
K. Kubat, reditel prof. J. Trapl) a Ustavu hematologie a krevni
transfuse (reditel Dr. J. Kidery).

(LEUKOCYTES,
leucokinin, increase of leukocytic motility (Cz))

POLAK, H.; POLAKOVA, K., (klinicka a hematologicka cast); SKVARIL, Fr.,
(biochemicka cast a statist. zhodnoceni)

Demonstration and attempted isolation of a new plasma protein
leukokinin, a substance increasing ameboid activity of leukocytes.
Cesk. pediat. 11 no.7:464-475 July 56.

1. III. Intern. klin. KU, Praha, Predn. akad. prof. K. J. Charvat
Ustav pro peci o matku a dite v Praze-Podoli, redit. prof. MUDr.
Trapl, z detskeho oddel., prednosta doc. Dr. K. Kubat. Ustav
hematologie a krevni transfuse, Praha, red. MUDr. J. Kidery.

(LEUKOCYTE,

increase of ameboid activity by blood protein fraction
leukokinin (Cz))

(BLOOD PROTEINS,

leukokinin, fraction increasing leukocyte ameboid
activity (Cz))

EXCERPTA MEDICA Sec.2 Vol.10/6 Phy.Biochem. June 57

2581. POLÁK H. and POLÁKOVA K. Inst. for Internal Dis., Charles Univ., Child. Dept., Inst. for the Care of Mother and Child; Inst. Org. Hlth Serv., Charles Univ., Prague. *The influence of transfusion on the amoeboid activity of leucocytes. Indirect evidence of a factor increasing the motility of leucocytes ACTA HAE-MAT. (Basel) 1956, 16/6 (385-395) Graphs 1 Tables 2 Illus. 1

A study was made of the amoeboid activity of leucocytes in the first 2 postnatal years and in adults. It was found that there were 3 stages of amoeboid activity in the course of ontogenesis: a stage of increase as compared with values in the cord blood, in the first 15 days of life; a stage of sudden decrease, beginning in the 3rd week, with minimum values between the 30th and 100th days of life; and a stage of gradual, steady increase up to the maximum values in adults. Indirect evidence of a factor which increases the amoeboid activity of infant leucocytes was submitted. On the basis of the results presented, a partial explanation of the therapeutic effect of fresh adult blood and plasma transfusions in infective conditions in children is suggested.

POLAK, H.; POLAKOVA, K.; SKVARIL, F.

No translation. Rev. Czech. M. 3 no.1:34-41 1957.

1. Third Clinic for Internal Diseases, Charles University, Prague.
Director: Academician J. Charvat.--Institute for the Care of
Mother and Child, Prague. Director: Professor Trapl Head of the
Infants' Department: Doc. K. Kubat. --Institute of Haematology
and Blood Transfusion, Prague. Director: J. Kidery, M.D.

(LEUKOCYTES

postnatal migration & role in immun.)

(IMMUNITY

role of postnatal migration of leukocytes)

POLAK, H.; NEMEC, J.; NEJWIRTH, J.; BLAZKOVA, P.; ZITA, Z.

Effects of gamma globulin on the motility of human leukocytes.
Cesk. epidem. mikrob. imun. 6 no.3:188-191 May 57.

1. Hematologicka laborator III. interni kliniky KU v Praze,
prednosta akademik J. Charvat.

(GAMMA GLOBULIN, eff.
on leukocyte motility (Cz))
(LEUKOCYTES
eff. of gamma globulin on motility (Cz))

POLAK, H.

NEMEC, J.; POLAK, H., NEUWIRTH, J.; ZITA, Z.; BIAZKOVA, P.

Present concepts on leukocyte motility in vitro. Cesk. fysiol. 6 no.3:
397-403 Aug 57.

1. III. interni klinika lekarske fakulty Karlovy university, Praha.
(LEUKOCYTES,
motility in vitro (Cz))

POLAKOVÁ H.

SKVARIL, F.; POLAKOVÁ, K.; POLAK, H.

Adsorption of leukocytes on asbestos-cellulose layers. Cesk.
pediat. 12 no.4:296-299 Apr 57.

(LEUKOCYTES, metab.
adsorp. on asbestos-cellulose layers (Cs))

EXCERPTA MEDICA Sec 4 Vol 12/6 Med. Micro. June 59

1871. LEUCOCYTE MOVEMENT AND IMMUNITY PROCESSES IN ADULTS AND CHILDREN - Leukozytenbewegung und Immunitätsvorgänge bei Erwachsenen und Kindern - Polák H. and Poláková K. 3. Med. Klin., Karls-Univ., Prag; 4. Kinderklin., Univ. Prag - Z. GES. INN. MED. 1957, 12/21 (966-974) Graphs 7 Tables 3 Illus. 6

An in-vitro method of determination of the leucocyte movements is described. Studies in adults showed that in virus stomatitis a decrease, but in bronchopneumonia an increase of the mobility takes place. Injections of ACTH also brought about an increase of the normal mobility. The values of leucocyte mobility in newborns are lower than in adults; they show a short period of increase in the first 2 weeks of life, then decrease to a minimum in the 3rd month and rise to normal values about the second year of life. In adult plasma a factor called 'leukokinin' was found which causes an increase of the leucocyte movement in vivo as well as in vitro. This factor is present in plasma fraction II + III, can be adsorbed on to BaSO₄, is electrophoretically between the α- and the β-globulins, and is inactivated after storage for 17 to 27 days in plasma at 2 to 4° C. There is no identity with properdin or other factors described so far which accelerate the phagocytosis of leucocytes.

Seelemann - Hamburg (VII, 4, 6)

POLAK, H.; NEUWIRTH, J.; NEMEC, J.; ZITA, Z.; BLAZKOVA, P.

Effect of temperature on the ameboid mobility of leukocytes. Cas.
lek. cesk. 96 no.19:569-573 10 May '57.

1. III. interni klinika KU v Praze, prednosta adak. J. Charvat.
(LEUKOCYTES)

eff. of temperature on ameboid mobility (Cz))
(TEMPERATURE, eff.

on ameboid mobility of leukocytes (Cz))

CZECHOSLOVAKIA/Human and Animal Physiology - Internal Secretion.
General Problems. T-7

Abs Jour : Ref Zhur - Biol., No 18, 1958, 84302

Author : Klichel, O., Polak, H., Vlach, V.

Inst :

Title : *VII INTERNI KLINIKU KUV PRAZE - NEUROLOGICKA KLINIKA*
The Problem of Asymmetric Hormone Phenomena.

Orig Pub : Casop. lekaru ceskych, 1957, 96, No 33-34, 1082-1090

Abstract : Eighteen patients with unilateral or symmetric gynecomastia were examined. In all of them neurological examinations revealed symptoms pointing into the direction of some local cortical innervation disturbances. In some of the patients earlier impairments of the nervous system were clearly indicated by anamnestic phenomena. It is assumed that the development of gynecomastia is related to the weakening of inhibitory activities of trophic innervation effecting hormone activity in the zones of impaired innervation. V.V. Yazvikov.

Card 1/1

CZECHOSLOVAKIA/Human and Animal Physiology - Blood. Regular Elements.

T

Abs Jour : Ref Zhur Biol., No 3, 1959, 12627

Author : Charvat, J., Polak, H., Nemec, J.

Inst : - III. interní klinika Karlovy university, Laborator pro endokr.

Title : Elevation of Leukocytes Following Stress (a Metab. pred. Adad.
Josef Charvat.)

Orig Pub : Cesop. lekaru ceskych, 1957, 96, No 51, 1582-1585

Abstract : After operation and muscle stress the leukocytes immediately increased (LI). After a week the LI reverted to original values. A positive linear correlation existed between the LI and the absolute number of neutrophils. Apparently, intensification of the migration of leukocytes is one of the manifestations of "alarm" reactions in individuals. -- A.D. Zhuchkova

Card 1/1

CZECHOSLOVAKIA

Polak, H., MD; REKICHA, V; KUBAT, M; KLIKA, J; KLESTIL, F;
BARTEJS, J; KALALOVA, D.

Institute of Public Health (Ustav narodniho zdravi),
Jachymovske doly (for all)

Prague, Praktickly lekar, No 16, 1963, p 628

"The Study of Morphological and Functional Condition of
Blood and Marrow Elements of the Workers in the
Jachymov Mines."

(7)

POLAK, H.; POLGAR, Terezia [translator]

Development achievements of high-capacity power plant reactors with
organic moderator. Atom taj 2 no.1:190-202 Ja '59.

POLAK, H.; RERICHA, Vl.; KLESTIL, Fr.; BARTEJS, J.

Volumetric and morphological changes in blood cells of workers employed
in mining and processing of radioactive raw materials. Prac. lek. 14
no. 9:413-420 N '62.

1. Ustav hygiény prace a prevence chorob z povolani, Jachymov.
(URANIUM) (MINING) (BLOOD CELLS)
(OCCUPATIONAL DISEASES)

POLAK, I., (Praga)

Analysis of the afferent segment of the reflex arch in sensitization of the skin with dinitrochlorobenzol in guinea pigs. Chekh. fiziol. 4 no.3:316-324 1955.

(NITROBENZENE,
dinitrochlorobenzene sensitization of skin, eff. on
afferent segment of reflex arch)
(REFLEX,
afferent segment in dinitrochlorobenzene sensitization
of skin)
(SKIN, diseases,
exper. dinitrochlorobenzene sensitization, eff. on
afferent reflex segment)
(ALLERGY, experimental,
dinitrochlorobenzene sensitization of skin, eff.)

KLISIC, Predrag, d-r; POLAK, Ivan, d-r

Experiences with hand injuries in Tuzla industrial region. Med.
arh., Sarajevo 12 no.3:115-121 My-Je '59.

1. Ortopedsko-traumatolosko odjeljenje opste bolnice u Tuzli,
sef: Predrag Klisic.

(HAND wds. & inj.)

(ACCIDENTS INDUSTRIAL)

KLISIC, P.; ALECKOVIC, S.; POLAK, I.

Treatment of femoral fractures by means of extension dressing with
mastisol. Srpski arh. celok. lek. 88 no.7/8:771-775 Jl-Ag '60.

1. Ortopedsko-traumatolosko odeljenje Opste bolnice u Tuzli. Nacelnik:
dr Predrag Klisic.

(FEMUR fract & disloc)

KLISIC, Predrag; POLAK, Ivan

Transposition of the tendon in a poliomyelitic foot. Med. arh.,
Sarajevo 15 no.1:43-50 Ja-F '61.

1. Ortopedisko-traumatolosko odeljenje Opste bolnice u Tuzli
(Sef: dr Predrag Klisic)
(POLIOMYELITIS surg)
(FOOT surg)
(TENDONS transpl)

KLISIC, Predrag; POLAK, Ivan

Experience with Lelievre's operation in hallux valgus. Med. arh.
15 no.5:67-70 S-0 '61.

1. Ortopedsko-traumatolosko odjeljenje Opste bolnice u Tuzli
(Nacelnik: dr Predrag Klisic).
(HALLUX surg)

KLISIC, Predrag, dr.; POLAK, Ivan; ALEKOVIC, Sulejman

Early surgical therapy of experimental osteoarticular tuberculosis.
Srpski arh. celok. lek. 89 no.2:165-174 F '61.

l. Ortopedsko-traumatolosko odeljenje Opste bolnice u Tuzli.
Nacelnik: dr Predrag Klisic.

(TUBERCULOSIS OSTEOARTICULAR surg)

DECEASED 1954

POLAK, Iosif Fedorovich; SAMSONENKO, L.V. redakter; GAVRILOV, S.S.,
tekhnicheskiy redakter.

[Course in general astronomy] Kurs obshchey astronomii. Izd. 7-e,
perer. Moskva, Gos.izd-vo tekhnika-teoret. lit-ry, 1955. 371 p.
(Astronomy) (MLRA 9:4)

GSS IN SLOVAKIA

POLAK, J; MERTL, I.

Institute of Chemical Process Fundamentals of the Czechoslovak Academy of Sciences, Prague, (for both)

Prague, Collection of Czechoslovak Chemical Communications,
No 10, 1965, pp 3526-3528

"Saturated Vapor Pressure of Methyl Acetate, Ethyl Acetate,
n-Propyl Acetate, Methyl Propionate and Ethyl Propionate."

BLECHA, J.; PEREGRINOVA, A.; HOLAK, J.

The relationship of accelerated puberty to the beginning of menarche. Cesk. pediat. 20 no.7:584-587 Jl '65.

1. Detska klinika lekarske fakulty Karlovy University v Hradci Kralove (prednosta prof. dr. J. Blecha, DrSc.).

L 31754-66 EWP(t)/ETI IJP(c) JD/WB

ACC NR: AP6021661

SOURCE CODE: CZ/0032/65/015/008/ 0563/0569

AUTHOR: Polak, J. (Engineer)

42

ORG: Chemoprojekt, Prague

B

TITLE: Protecting underground steel structures against corrosion

SOURCE: Strojirenstvi, v. 15, no. 8, 1965, 563-569

TOPIC TAGS: corrosion, steel structure, protective coating

ABSTRACT: The article briefly explains the mechanism of corrosion damaging underground steel structures and specifies individual factors which determine the character and intensity of corrosion. The efficiency and economy of various methods currently used are compared and the important advantages of galvanic methods based on the use of consumable anodes are emphasized. Formulas are derived for calculating the principal parameters of the anode systems, properties of anodes of various materials are discussed, and examples of application are cited. This article was presented by Engineer M. Cerny. Orig. art. has: 4 figures and 2 tables. [Based on author's Eng. abstract] [JPRS]

SUB CODE: 11, 13 / SUBM DATE: none / ORIG REF: 030 / OTH REF: 008
SOV REF: 004

LS

Card 1/1

UDC: 624.014.2:620.193.92:620.197.5

L 31390-66 IJP(c) RM/WF
ACC NR: AP6021097

SOURCE CODE: CZ/0008/66/000/001/0117/0744

AUTHOR: Polak, Jiri

356
55

ORG: Institute for Theoretical Bases of Chemical Technology, CSAV, Prague (Ustav B
teoretickych zakladu chemicko techniky CSAV)

TITLE: Heat of evaporation of pure compounds

SOURCE: Chemicke listy, no. 1, 1966, 117-144

TOPIC TAGS: evaporation, heat of vaporization, chemical purity, thermodynamic calculation, thermodynamic state equation, entropy, critical point, compressible fluid

ABSTRACT: Thermodynamic equations for the calculation of heats of evaporation are discussed. Clapeyron's equation, Clausius-Clapeyron's equation, Modified Clapeyron's equation are discussed. Approximate methods for calculation of heats of evaporation are evaluated. Generalized and Comparative methods of calculation are described. Relationship between the entropy of evaporation and the normal boiling point, and the heat of evaporation and the temperature of evaporation are discussed. Graphical estimating methods are described. The values of the compressibility factor for saturated vapors and liquids are given. A Table listing 55 well known methods of calculation of the evaporation

Card 1/2

L 31390-66

ACC NR: AP6021097

heat and the evaluation of these methods is presented. The author thanks Docent, Engineer, Doctor E. Hal, Doctor of sciences for valuable advice and interest in this work. Orig. art. has: 3 figures, 19 formulas, and 2 tables. [JPRS]

SUB CODE: 20 / SUBM DATE: 19Dec63 / ORIG REF: 001 / OTH REF: 095
SOV REF: 014

Card 2/2. (C)

POLAK, J.

4
CSSR

CHROBAK L., ANTALOVSKA, Z., POLAK, J., KVASNICKA, J.

1st clinic for Internal Medicine, medical faculty of Charles University
(I. interni klinika lekarske fakulty KU) Hradec Kralove; director:
docent Dr. F. Cernik; Stomatological Clinic of the medical faculty of
Charles University (stomatologicka klinika lekarske fakulty KU) Hradec
Kralove, director: Prof. Dr. L. Sasava, DSc; Pediatric clinic of the
medical faculty of Charles University (detska klinika lekarske fakulty
KU) Hradec Kralove, director: Prof. Dr. J. Blecha, DSc

Prague, Ceskoslovenska Stomatologie, No 2, 1963, pp 121-126.

"Rare Manifestations of Haemophilia in the Orofacial Area"

POLAK, J.; BRET, J.

Contribution to the possibility of roentgen diagnosis of mitral stenosis before surgery. Rozh.chir.42 no.11:754-758 N'63.

1. Rennigenologické oddelení UVN v Praze; vedoucí:MUDr. F.Sykora.

*

POLAK, J., inz.; SALDA, V., inz.

Hotel A4 in Praha-Invalidovna. Stavivo 41 no.11; Supple-
ment: Staviva a stavby: insert N°63.

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341710017-6

POLAK, J., inz.; SALDA, V., inz.

Tower building in Praha - Střešnice. Stavivo 41 no.11;
Supplement: Staviva a stavby: insert N°63.

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341710017-6"

POLAK, J.

Influence of lattice imperfections on thermoelectric power
of pure gold. Chékhovl fiz zhurnal 13 no.8:616-618 '63.

1. Ustav vlastnosti kovu, Československa akademie ved, Brno.

BLECHA, J.; PAZDERKA, J.; FRANK, M.; POLAK, J.

Values of total fatty acid esters of the skin surface in
adolescence -- relation to acne. Cesk. pediat. 20 no.7:
572-577 Jl '65.

1. Detska klinika lekarske fakulty Karlovy University v
Hradci Kralove, (prednosta prof. dr. J. Blecha, DrSc.) a
Ustredni laboratore fakultni nemocnice v Hradci Kralove
(vedouci MUDr. J. Jicha).

Z/037/63/000/002/001/004
E140/E135

AUTHORS: Míšek K., and Polák J.

TITLE: Measurement of the temperature of fine metal wires

PERIODICAL: Československý časopis pro fysiku, no. 2, 1963, 87-93

TEXT: The study of activation energies in very pure metals, in particular of the precious metals, has recently become a center of attention. The most frequent method of obtaining vacancies in solid solution has been to heat fine wires (several hundredths of mm diameter) by the passage of current, and to cut off the current. The advantages are that internal stresses do not arise in the wire, and plastic deformation is practically eliminated. The main problem is the accurate determination of the temperature. The main possible error in determining the activation energy due to error in temperature measurement is of the same order as the precision attainable (hundredths of eV) and therefore improved methods of temperature determination are desirable. The article applies the Matthiessen rule to the problem, under the following assumptions: the temperature dependence of the metal for the standard annealed state is known, and the component of resistivity due to impurities

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Measurement of the temperature of ... z/037/63/000/002/001/004
E140/E135

or lattice defects is independent of temperature. Then the ratio of resistances k_t' for the standard, as a function of the actually measured ratio of resistances k_t of the "impure" sample is given by:

$$k_t = k_t' (R_0'/R_0) - [(R_0'/R_0) - 1] (1 - \alpha t) \quad (6)$$

This formula was verified for platinum containing several parts per thousand of impurities.

There are 1 figure and 1 table.

ASSOCIATION: Ústav fysiky pevných látok ČSAV, Praha
(Institute of Solid State Physics, Czech AS, Prague)

SUBMITTED: June 27, 1962

Card 2/2

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341710017-6

DOSEKOVA, Eleonora, inz.; POLAK, Jan, inz.

Reduction of the free formaldehyde in the air in making
particle boards. Drevo 18 no.3:100-103 Mr '63.

1. Statny drevarsky vyskumny ustav, Bratislava.

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341710017-6"

BASTECKA, Vlasta; POLAK, Jiri

Thrombocytopenic purpura in infectious hepatitis. Sborn. ved.
prac. lek. fak. Karlov. Univ. 8 no. 5: 579-582 '65.

1. Infekeni klinika (prednosta - prof. MUDr. J. Ondracek);
Detska klinika (prednosta: prof. MUDr. J. Blecha) v Hradci
Kralove.

L 17571-65 EWT(m)/EWP(w)/EWA(d)/EWP(t)/EWP(b) AS(mp)-2/AFWL/ASD(a)-5/AFETR
ACCESSION NR: AP4045980 JD Z/0037/64/000/005/0443/0466

AUTHOR: Polak, Jaroslav

TITLE: Effect of crystal lattice defects on the transport coefficients of metals

SOURCE: Ceskoslovensky casopis pro fysiku, no. 5, 1964, 443-466

TOPIC TAGS: crystal lattice defect, transport coefficient of metal, resistivity, thermoelectric motive force, foreign atom, vacancy, surface defect, volume defect, scattering mechanism

ABSTRACT: Recent important progress made in the study of crystal lattice defects in metals by measuring their effect on certain transport coefficients, such as electrical resistivity and thermal emf, is reviewed. Whereas the effect of foreign atoms, vacancies, and surface defects on the electrical resistivity of metals has been sufficiently well investigated theoretically and experimentally, the problem of interstitial atoms and the disagreement between the experimental and theoretical data on dislocations remains. The effect of lattice defects on thermal emf has been investigated much less, developing experimentally only recently. Such investigations are important either for determining the correctness of a theoretical

B

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L 17571-65

ACCESSION NR: AP4045980

5

approach to the problem and with this to eliminate incorrect models, or for finding quantitative relations which can be applied to the study of defects in metals, through the measurement of changes in certain transport coefficients. The particular scattering mechanisms are discussed, with special attention given to scattering by static lattice defects and by thermal lattice vibrations, and the role of point defects, line defects, surface defects, and volume defects in scattering. The most important experimental results obtained in the study of the effect of defects on the resistivity and thermal emf of metals are given and compared with theoretical calculations. The author thanks Dr. K. Misek, Sc.C., for his interesting observations and advice in the preparation of this study, and Drs. Cernohorski and Cizek for reading the manuscript and for their critical observations. Orig. art. has: 4 diagrams, 3 tables, and 41 formulas.

ASSOCIATION: Ustav vlastnosti kovu CSAV, Brno (Institute of the Properties of Metals, Czechoslovak AS)

SUBMITTED: 22Dec63

ENCL: 00

SUB CODE: SS, MM

NO REF SOV: 002

OTHER: 076

Card 2/2

POLAK, Jindrich, dr.

Some problems of improving planned management. Sklar a keramik 14
no.12:333-334 D '64.

1. Ministry of Consumer Goods Industry, Prague.

POLAK, Jiri; CHROBAK, Ladislav; SAIAVEC, Miloslav; CERNIK, Frantisek;
ANTALOVSKA, Zora.

Incidence of hemophilia in the region of East Bohemia. Clinical
manifestations of hemophilia among members of a group. Sborn.
ved. prac. lek. fak. Karlov. univ. (Hrad.Kral.) 6 no.4:373-383
'63.

Problems of hemophilia from the viewpoint of stomatology.
Ibid. 409-424

Diagnostic errors and some social viewpoints in hemophilia.
Ibid. 425-434

1. I. interni klinika (prednosta: prof. MUDr. F.Cernak);
Detska klinika (prednosta: prof. MUDr. J.Blecha, DrSc.) a
Stomatologicka klinika (prednosta: prof. MUDr.L.Sazama, CSc.).
Karlova universita v Hradci Kralove.

SALAVEC, Miloslav; CHROBAK, Ladislav; POLAK, Jiri; CERNIK, Frantisek;
PRIBORSKY, Jaromir; ANTALOVSKA, Zora.

Hemophilic arthropathy. Sborn. ved. prac. lek. fak. Karlov.
Univ. (Hrad. Kral.) 6 no.4:385-407 '63.

1. I. interni klinika (prednosta: prof. MUDr. F.Cernik);
Detska klinika (prednosta: prof. MUDr. J.Blecha, DrSc.) a
Stomatologicka klinika (prednosta: prof. MUDr. L.Sazama, CSc.).

CHROBAK, Ladislav; POLAK, Jiri; SALAVEC, Miloslav; CERNIK, Frantisek;
ANTALOVSKA, Zora; HNIZDOVA, Dagmar.

Hemophilia in the region of East Bohemia (Coagulation studies).
Sborn. ved. prac. lek. fak. Karlov. Univ. (Hrad. Kral.) 6 no.4:
365-372 '63.

1. I. interni klinika (prednosta: prof. MUDr. F.Cernik); Detska
klinika (prednosta: prof. MUDr. J.Elecha, DrSc.) a Stomatolo-
gicka klinika (prednosta: prof. MUDr. L.Sazama, CSc.).

*

SALAVEC, Miloslav; CHROBAK, Ladislav; POLAK, Jiri; CERNIK, Frantisek;
PRIBORSKY, Jaromir; ANTALOVSKA, Zora.

Hemophilic arthropathy. Sborn. ved. prac. lek. fak. Karlow.
univ. (Hrad. Kral.) 6 no.4:384-407 '63

1. I. interni klinika (prednost^a: prof. MUDr. F.Cernik);
Detska klinika (predosta: prof. MUDr. J.Hlecha, DrSc.) a
Stomatologicka klinika (predosta: prof. MUDr. L. Sasema,
CSc.). Karlova universita v Hradci Kralove.

L 20400-66 T/EWP(t) IJP(c) JD/JG

ACC NR: AP5024754

SOURCE CODE: GE/0030/65/011/002/0673/0681

AUTHOR: Polak, J.

27
24
13

ORG: Institute of Metallurgy, Czechoslovak Academy of Sciences,
Brno

TITLE: Electrical resistivity and thermoelectric power of stacking
faults in gold 27

SOURCE: Physica status solidi, v. 11, no. 2, 1965, 673-681

TOPIC TAGS: gold, metal physical analysis, annealing

ABSTRACT: In measuring the changes of the electrical resistivity and thermoelectric power of gold during isochronal annealing after quenching from high temperatures two annealing steps were found. The low-temperature step at 50C is due to the clustering of vacancies with the formation of stacking fault tetrahedra, whereas the high-temperature step at 650C is due to the dissolution of tetrahedra. It is found that the electrical resistivity due to stacking faults

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L 20400-66

ACC NR: AP5024754

3

is $\varrho_s = (1.0 \pm 0.2) \times 10^{-13} \Omega\text{cm}^2$ and the change of thermoelectric power per unit density of stacking faults $\Delta S_s/\beta = (-2.9 \pm 0.3) \times 10^{-14} \text{ Vcm}/^\circ\text{K}$. Stacking faults, like vacancies, reduce the absolute thermoelectric power of gold. This behavior is contrary to the effect of dislocations, which increase the thermoelectric power. The author wishes to express sincere gratitude to Dr. K. Misék for his stimulating discussions and valuable advice. He is also grateful to Dr. M. Černohorský for his interest and encouragement, and to Dr. A. Cizek for his critical comments. Orig. art. has: 4 formulas, 4 figures and 2 tables. [Based on author's abstract]

SUB CODE: 11, 20/ SUBM DATE: 12Jul65/ ORIG REF: 001/
OTH REF: 028/

Card 2/2 BK

CHROBAK, Ladislav; POLAK, Jiri; SALAVEC, Miloslav; CERNIK, Frantisek;
ANTALOVSKA, Zora; HNIZDOVA, Dagmar.

Hemophilia in the region of East Bohemia. (Coagulation studies).
Sborn. ved. prac. lek. fak. Karlov. univ. (Hrad. Kral.) 6 no.4:
365-372 '63.

1. I. interni klinika (prednosta: prof. MUDr. F.Cernik); Detska
klinika (prednosta: prof. MUDr. J.Hlecha, DrSc.) a Stomatologicka
klinika (prednosta: prof. MUDr.L.Sazama, CSc.), Karlova univer-
sita v Hradci Kralove.

POLAK, Jiri; CHROBAK, Ladislav; SALAVEC, Miloslav; CERNIK, Frantisek;
ANTALOVSKA, Zora.

Incidence of hemophilia in the region of East Bohemia. Clinical manifestations of hemophilia among members of a group. Sborn. ved. prac. lek. fak. Karlov. Univ. (Hrad. Kral.) 6 no.4:373-383 '63.

Problems of hemophilia from the viewpoint of stomatology.
Ibid. 8409-424.

Diagnostic errors and some social viewpoint in hemophilia.
Ibid. 8425-434

1. I. interni klinika (prednosta: prof. MUDr. F.Cernik);
Detska klinika (prednosta: prof. MUDr. J.Blecha, DrSc.) a
Stomatologicka klinika (prednosta: prof. MUDr. L.Sazama, CSc.).

POLAK, Jozef, inz.

Controlling the investment development by the variation coefficient.
Vodni hosp 13 no.5:192-193 '63.

1. Ministerstvo polnchospodarstva, lesneho a vodnaho hospodarstva,
Praha.

POLAK, Josef, inz.

"Practical application of linear programming methods" by V.
Kadlec and L.Vodacek. Reviewed by Josef Polak. Vodni hosp 13
no.1:34 '63.

POLAK, J.; CIZEK, A.

The kinetics of vacancies in platinum. Cs cas fys 12 no.3:
226-234 '62.

1. Katedra fysiky pevne faze prirodovedecké fakulty University
J.E.Purkyne, Brno. Presently: Ustav fysiky pevných latek,
Československá akademie věd, Praha (for Polak); Laborator pro
studium vlastností kovů, Československá akademie věd, Brno
(for Cizek).

POLAK, J.

Orientation study of hemostasis. Cesk. pediat. 18 no.9:822-825
S '63.

1. Detska klinika lekarske fakulty KU v Hradci Kralove, pred-
nosta prof. dr. J. Blecha.
(HEMOSTASIS) (CAPILLARY RESISTANCE)
(BLOOD COAGULATION TESTS)

ACCESSION NR: AP4026362

Z/0055/64/014/003/0176/0188

AUTHOR: Polak, J.

TITLE: Change of absolute value of thermoelectric power of gold and platinum due to lattice defects

SOURCE: Chekhoslovatskiy fizicheskiy zhurnal, v. 14, no. 3, 1964, 176-188

TOPIC TAGS: crystal lattice, crystal lattice defect, thermoelectric power, gold, platinum, gold lattice defect, platinum lattice defect, point defect, metal point defect, alloy defect, thermoelectricity, metal physics, metal property, solid state physics

ABSTRACT: A detailed investigation of the change in thermoelectric power caused by quenching or cold-working of high-purity gold and aluminum was carried out. Measurements were made over the temperature range -190C to +20C. Gold and platinum wires of a 99.999% purity were used. Diameter was 0.1 mm. The heat treatment of both samples as well as the measurement of the thermoelectric force and electrical resistivity was carried out in the same apparatus. This excluded the possibility of deforming the sample during handling. The specimens were quenched by plunging them into distilled water, followed by a current cut-off. The electrical resistance

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ACCESSION NR: AP4026362

was measured immediately after quenching in a stirred water bath kept at room temperature. Measurement was by comparing the potential drop on the specimen and on an annealed dummy. The thermoelectric force temperature dependence was measured by placing the hot junction of a thermocouple in a large copper block held at room temperature and plunging the cold junction into liquid oxygen and nitrogen and then into a petroleum-ether bath cooled by liquid nitrogen down to a temperature of -150°C. Findings show that dislocations raise the absolute thermoelectric power of gold, while vacancies reduce it. In the case of platinum, both types of defects reduce the absolute value of the thermoelectric power over the entire temperature range. The extra-thermoelectric power ΔS varies directly with vacancy concentration. Its value is given by the relation

$$\Delta S/c = -1 \times 10^8 \mu\text{V}/(\text{grad at. \% vac.})$$

The activation energy for the formation of lattice vacancies in gold was

$$E_f = (0.93 \pm 0.14) \text{ eV}$$

Experimental results were discussed in terms of Mott's theory (Mott and Jones, "The Theory of the Properties of Metals and Alloys", Oxford Univ. Press, 1936; Mott and Massey, "The Theory of Atomic Collisions", Oxford, 1949) and the obtained values were compared with the theoretical calculations of Abeles (Compte Rendous

Card 2/3

ACCESSION NR: AP4026362

Acad. of Sciences, Paris, 237 (1953), 796). The author wishes to express his thanks to Dr. Misek for suggesting this investigation and for help while this work was being carried out, and also to Dr. Cernohorsky for his critical comments and support while this paper was being written." Orig. art. has: 5 figures 2 tables and 4 equations.

ASSOCIATION: Institute of Solid State Physics, Czech. Academy of Sciences, Prague

SUBMITTED: 26Sep63

DATE ACQ: 15Apr64

ENCL: 00

SUB CODE: SS

NO REF Sov: 001

OTHER: 030

Card 3/3

POLAK, J.; CHROBAK, L.; SALAVEC, M.; CERNIK, F.; ANTALOVSKA, Z.

Incidence of hemophilia in East Bohemia. Cas. lek.cesk.
103 no. 23:636-638 5 Je '64.

1. Datska klinika lekarske fakulty KU [Karlov university]
v Hradci Kralove (prednosta: prof. dr. JlBlecha, DrSc);
I. interni klinika lekarske fakulty KU [Karlov univeristy]
v Hradci Kralove (prednosta: prof. dr. F.Cernik) a Stomatologicka
klinika lekarske fakulty KU [Karlov university] v Hradci Kralove
(prednosta: prof. dr. L.Sazma, CSc.).

POLAK, Jiri

History of the diagnosis of hemophilia. Sborn. ved. prac.lek.
fak. Karlov. univ. (Hrad.Kral.) 6 no.4:361-364 '63

1. Detska klinika; prednosta : prof. MUDr. J.Hlecha, DrSc. ;
Karlova universita v Hradci Kralove.

POLAK, J.

Change of absolute thermoelectric power of gold and platinum
due to lattice defects. Chekhosl fiz zhurnal 14 no. 3: 176-188
'64.

1. Institute of Metallurgy, Czechoslovak Academy of Sciences,
Brno.

POLAK, J.

First state-wide congress of technicians, rationalizers, and inventors,
p. 284, SKLAR A KERAMIK (Ministerstvo lehkého průmyslu) Praha, Vol. 4,
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2520. POLÁK J. *Report on the development of caisson disease under the conditions of the construction of the water dam in Lipno (1953 - 1955) PRACOVNÍ LÉKAŘSTVÍ (Praha) 1956, 8/3 (200-203) Tables 4 (Czech text)

Strict assessment of ability for caisson work is necessary on the basis of a thorough preemployment examination, at which the greatest attention must be paid to the auditory apparatus. Of the slight forms of caisson disease, diseases of joints prevailed at the working site, of which the knee joints were by far the most frequently affected. These responded very well to treatment. Most frequently the disease occurred at work at the greater depths, especially in middle-aged subjects working over 2 yr. in caissons; asthenic types were very susceptible. As regards prognosis, intestinal and cephalic forms should be assessed with the greatest care (Ménière etc.); these are rare, but their treatment is more difficult. The best therapeutic measure appears to be the compression chamber (with possibility of electric heating) with simultaneous active exercise. It must be used in every case of illness and, when possible, immediately.